

### **Remarks**

Reconsideration of the above identified application in view of the present amendment is respectfully requested.

The present amendment amends page 5 of the specification to correct a typographical error. The present amendment also amends claims 1, 6, 10, 14, 19 and 20, cancels claim 5, and adds new claims 26-30. Accordingly, after the entry of the present amendment, claims 1-4 and 6-30 will be pending. No new matter has been added by the present amendment.

The disclosure was objected to because of an error on page 5. The specification has been amended in the manner suggested by the Examiner. Accordingly, applicants respectfully request withdrawal of the objection to the specification.

Claim 5 was rejected under 35 U.S.C. § 112, first paragraph. Claim 5 has been cancelled.

Claims 1, 2, 4, 6-8, 10, 11 and 13-18 were rejected under 35 U.S.C. § 102(a) as being anticipated by Lin et al. "On interface property characterization and performance of fiber-reinforced cementitious composites", hereinafter "the *Lin Article*."

Without acquiescing in the Examiner's grounds for rejection, or conceding the non-patentability of claim 1, claim 1 has been amended to more particularly point out and particularly claim the present invention.

Claim 1 recites a self-compacting, fiber-reinforced engineered cementitious composite comprising cementitious material comprising cement and sand, at least one polymeric thickener, at least one superplasticizer, and water and from 0.5 to 10 volume % of

hydrophilic reinforcing fibers having a modulus (E) of about 35-50 GPa and a percent elongation of about 3-20%.

The *Lin Article* does not teach, disclose or suggest the present invention as recited by claim 1.

The law on 35 U.S.C. § 102 is quite clear.

For a prior art reference to anticipate a claim, the reference must disclose each and every element of the claim with sufficient clarity to prove its existence in the prior art. See *In re Spada*, 911 F.2d 705, 708, 15 USPQ 2d 1655, 1657 (Fed. Cir. 1990) ("[T]he [prior art] reference must describe the applicant's claimed invention sufficiently to have placed a person of ordinary skill in the field of the invention in possession of it." (citations omitted)). Although this disclosure requirement presupposes the knowledge of one skilled in the art of the claimed invention, that presumed knowledge does not grant a license to read into the prior art reference teachings that are not there.

*Motorola, Inc. v. Interdigital Tech. Corp.*, 43 USPQ 2d 1481, 1490 (Fed. Cir. 1997).

The *Lin Article* does not disclose, teach or suggest each and every element of claim 1, let alone teach each and every element with sufficient clarity to have placed a person of ordinary skill in possession of the invention. To begin with, the *Lin Article* does not disclose, teach or suggest a thickener. Moreover, the *Lin Article* does not teach, disclose or suggest the hydrophilic reinforcing fibers recited in claim 1. Accordingly, applicant respectfully requests withdrawal of the 35 U.S.C. rejection of claim 1 in view of the *Lin Article*.

Claims 1-4 and 6-25 were rejected under 35 U.S.C. § 102(b) or (e) as being anticipated by Mayahara et al. (U.S. Patent No. 6,106,945), hereinafter "*Mayahara*" or Jensen

et al. (U.S. No. 4,636,345), hereinafter "*Jensen*". Applicants respectfully traverse these rejections.

*Mayahara* does not disclose, teach or suggest the invention as recited by claim 1. Specifically, *Mayahara* does not disclose a self-compacting, fiber-reinforced engineering cementitious composite comprising cementitious material and the hydrophilic reinforcing fibers recited in claim 1. *Mayahara* has not placed the present invention in the possession of the public. Accordingly, applicants respectfully request the withdrawal of the 35 U.S.C. § 102 rejection of claim 1 in view of *Mayahara*.

Applicants respectfully traverse the 35 U.S.C. § 102 rejection of claim 1 in view of *Jensen*.

*Jensen* does not disclose, teach or suggest the invention as recited by claim 1. Specifically, *Jensen* does not disclose a self-compacting, fiber-reinforced engineering cementitious composite comprising cementitious material and the hydrophilic reinforcing fibers recited in claim 1. *Jensen* has not placed the present invention in the possession of the public. Accordingly, applicants respectfully request the withdrawal of the 35 U.S.C. § 102(b) rejection of claim 1 in view of *Jensen*.

Accordingly, applicants respectfully submit that claim 1 is patentable in view of the prior art.

Claims 2-4, 6-9 and 26-30 all depend either directly or indirectly from claim 1 and are therefore allowable for at least the same reasons as claim 1. Moreover, these claims recite further limitations that make them independently patentable.

For instance, claim 6 recites that the hydrophilic fibers have a modulus (E) of about 40-45 GPa. Nowhere in the prior art is this limitation disclosed, taught or suggested.

Claim 26 recites that the components of present and sufficient amounts such that when the composite is cured, the resulting cured product has a first crack strength of 2.1-2.6 MPa and an ultimate tensile strength of 2.8-3.8 MPa. Nowhere are these limitations disclosed, taught or suggested in the prior art.

Claim 28 recites that the components are provided in such amounts that the composite has a water-cement ratio of about 25 wt% to about 60 wt%, a sand-cement ratio of about 20 wt% to about 160 wt%, a thickener-cement ratio of about 0.001 wt% to about 0.5 wt%, and a superplasticizer-cement ratio of about 0.1 wt% to about 5 wt%. Nowhere are these limitations disclosed, taught or suggested in the prior art.

Independent claim 10 was rejected in view of the same three references as independent claim 1. Independent claim 10 has been amended in the same manner as independent claim 1 and as such contains many of the limitations found in independent claim 1. Since claim 10 contains many of the limitations found in claim 1, claim 10 is therefore patentable for essentially the same reasons as claim 1. Specifically, the method of making a composite structural material comprising mixing the hydrophilic reinforcing fibers of claim 10 with the cementitious material of claim 10 is not disclosed, taught or suggested in the prior art. Accordingly, applicants respectfully request withdrawal of the 35 U.S.C. § 102 rejections of claim 10.

Claims 11-19 all depend either directly or indirectly from claim 10 and are therefore allowable for at least the same reasons as claim 10. Moreover, these claims recite further limitations that make them independently patentable.

Independent claim 20 was rejected in view of the same three references as independent claim 1. Independent claim 20 has been amended in the same manner as independent claim 1 and as such contains many of the limitations found in independent claim 1. Since claim 20 contains many of the limitations found in claim 1, claim 20 is therefore patentable for essentially the same reasons as claim 1. Specifically, the method of making a

composite structural material comprising the mixing steps of claim 20 are not disclosed, taught or suggested in the prior art. Accordingly, applicants respectfully request withdrawal of the 35 U.S.C. § 102 rejections of claim 20.

Claims 21-25 all depend either directly or indirectly from claim 20 and are therefore allowable for at least the same reasons as claim 20. Moreover, these claims recite further limitations that make them independently patentable.

Applicants submit that the application is in a condition for allowance and respectfully request a notice to that effect. If the Examiner believes that a telephone conference will advance the prosecution of this application, such a conference is invited at the convenience of the Examiner.

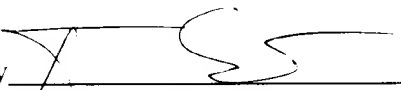
Applicants note that two of the foreign references (DE 1 279 918 and CH 630 131) that were submitted with the Information Disclosure Statement filed December 11, 2001 were not considered by the Examiner as indicated by the striking through of these references on the PTO/SB/08A form returned with the present Office Action. Applicants presume that the references were not considered since they were in a foreign language. Applicants wish to point out that in accordance with 609 of the MPEP (See Page 600-122 of the August 2001 version of the MPEP) that the applicants have satisfied their requirements for a concise explanation of the relevance of these non-English language references by submitting the English language version of the Search Report with the Information Disclosure Statement identifying these references. Accordingly, applicants respectfully request an indication from the Examiner that these references have been considered.

Reply to Office Action of April 30, 2003

A check in the amount of \$91.00 is enclosed to cover the 1-month Petition fee of \$55.00 and the additional claims filing fee of \$36.00. Please charge any additional fees or credit any overpayments as a result of the filing of this paper to our Deposit Account No. 02-3978 -- a duplicate of the Amendment Transmittal is enclosed for that purpose.

Respectfully submitted,

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